Claims

What is claimed is:

[c1] A directory server comprising:

a supplier server;

a consumer server in communication with the supplier server;

a plurality of pluggable services that manage replication of data contained within the directory server from the supplier server to the consumer server; and

a replica update vector used to determine a minimal set of updates necessary to synchronize the consumer server with respect to the supplier server;

wherein replication of data is managed using the replica update vector.

[c2] The directory server of claim 1, wherein the replica update vector is persistently stored in a directory information tree.

[c3] The directory server of claim 1, wherein a memory representation of the replica update vector comprises a change sequence number pending list.

[c4] The directory server of claim 1, wherein the replica update vector comprises a change sequence number for each known replica and a description of a latest update received from a corresponding replica.

[c5] The directory server of claim 1, wherein the replica update vector is accessed through an application programming interface.

[c6] A method of updating a replica update vector, comprising:

requesting a replica update vector from a consumer server;

sending the replica update vector from the consumer server to a supplier server;

comparing the replicate update vector of the consumer server with the replica update vector of the supplier server; and

sending discrepancies of a comparison from the supplier server as an update to the replica update vector of the consumer server, if a discrepancy exists.

[c7] The method of claim 6, further comprising, exchanging the replica update vector at the beginning of a replication session.

[c8] The method of claim 6, wherein the replica update vector is persistently stored in a directory information tree.

[c9] The method of claim 6, wherein a memory representation of the replica update vector comprises a change sequence number pending list.

[c10] The method of claim 6, wherein the replica update vector comprises a change sequence number for each known replica and a description of a latest update received from a corresponding replica.

[c11] The method of claim 6, wherein the replica update vector is accessed through an application programming interface.

[c12] A method of updating a replica update vector, comprising:
requesting a replica update vector from a consumer server;
sending the replica update vector from the consumer server to a supplier server;
comparing the replica update vector of the consumer server with the replica update vector of the supplier server;
sending discrepancies of a comparison from the supplier server as an update to the replica update vector of the consumer server, if a discrepancy exists; and
exchanging the replica update vector at the beginning of a replication session.

[c13] An apparatus for updating a replica update vector, comprising:
means for requesting a replica update vector from a consumer server;

means for sending the replica update vector from the consumer server to a supplier server;

means for comparing the replica update vector of the consumer server with the replica update vector of the supplier server; and

means for sending discrepancies of a comparison from the supplier server as an update to the replica update vector of the consumer server, if a discrepancy exists.